

AMENDMENT UNDER 37 C.F.R. § 1.111
Application Serial No. 10/702,082
Attorney Docket No. Q77943

REMARKS

Upon entry of the present Amendment, claims 1-10 are all the claims pending in the application. Claims 1 and 5 are amended and new claim 10 is added. No new matter is presented.

To summarize the Office Action, claims 1, 8 and 9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Mandel et al. (U.S. Patent No. 5,358,238, hereinafter “Mandel”), claim 2 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Capri et al. (U.S. Patent No. 5,975,515, hereinafter “Capri”), claim 3 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Pirie et al. (U.S. Patent No. 6,371,672, hereinafter “Pirie”), and claims 4-6 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Koizumi et al. (U.S. Patent No. 6,297,842, hereinafter “Koizumi”).¹ Further, the Examiner has objected to claim 7 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims.

The outstanding rejections are addressed below.

¹ Applicant notes that page 4 of the Office Action indicates that claims 4-7 are rejected over Mandel in view of Koizumi, while page 6 of the Office Action indicates that claim 7 is objected to for depending from a rejected base claim but is otherwise allowable. Further, the grounds of rejection do not address the limitations of claim 7. Accordingly, Applicant believes the Examiner intended to indicate that claims 4-6 were rejected under 35 U.S.C. § 103(a) over Mandel in view of Koizumi.

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Claim Rejections - 35 U.S.C. § 102

As noted above, claims 1, 8 and 9 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Mandel. Applicant respectfully traverses and submits that Mandel fails to teach or suggest all the limitation of these claims, as evidenced by the following.

For instance, independent claim 1 defines an image forming apparatus which comprises, *inter alia*, a main section and a plurality of attachment units which are attached to the main section in a cascade arrangement, and each of which includes a controlled element. Claim 1 additionally recites a line group which connects the main section with the plurality of attachment units, and which establishes communications between the main section and the controlled elements which are respectively disposed to the plurality of attachment units. As defined by claim 1, the line group includes signal lines and selective control lines, in which the signal lines connect the controlled elements in parallel with the main section, to thereby realize a communication between each one of the controlled elements and the main section, and the selective control lines connect the main section respectively with the attachment units, to thereby select one of the attachment units to which the main section is to communicate.

Therefore, claim 1 requires a line group which includes both signal lines which connect controlled elements in parallel with the main section to realize communication between each one of the controlled elements and the main section and selective control lines which connect the main section respectively with attachment units and selective control lines that connect the main section to the attachment units to select one of the attachment units to which the main section is to communicate. Mandel clearly fails to teach or suggest *at least* these features.

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In this regard, Applicant notes that Mandel teaches that each of the plurality of sensor units 112 is connected with the controller only via a separate control line. *See* Mandel at Figs. 14 and 16 and col. 29, lines 44-55. Indeed, Mandel simply teaches that the bin empty sensor system 110 utilizes a single optical sensor unit 112 in each bin. *See* Mandel at col. 28, lines 41-57. Further, column 29, lines 45-50, which the Examiner relies upon in the grounds of rejection, merely describes the interrogation of the sensors by controller 100. It does not, however, suggest a line group, as defined by claim 1. Moreover, Mandel's disclosure of separate connections to each of the sensor units to the controller is inconsistent with signal lines which connect controlled elements in parallel with the main section to realize communication between each one of the controlled elements and the main section separate connecting leads, as claimed.

Thus, at least for the foregoing reasons, Mandel fails to reasonably teach or suggest all the limitations of claim 1. Accordingly, reconsideration and withdrawal of the rejection of claim 1 is requested. Further, Applicant submits that claims 2-10 should be allowed at least by virtue of their dependency from claim 1.

Claim Rejections - 35 U.S.C. § 103

Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Capri. In addition to being allowable by virtue of depending from claim 1, as discussed above, Applicant submits that the combination of Mandel and Capri fails to teach or suggest all the limitations of claim 2, as discussed below.

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Claim 2 requires that the selective control lines are provided in accordance with a cascade connection count of said attachment units relative to said main section. However, the portion of Capri relied upon by the Examiner merely teaches that the printer 10 uses up to four paper supply trays 12, 14, 16 and 18. *See* Capri at col. 2, lines 47-48.

Thus, even assuming *arguendo* that the asserted motivation to combine Mandel and Capri is proper, the combined teaching would not suggest the relation between the selective control lines and the cascade connection count defined by claim 2 because Mandel does not suggest “selective control lines” as claimed. Thus, in addition to being allowable by virtue of its dependency, claim 2 should be allowed because Mandel and Capri fails to suggest all the claim limitations.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Pirie, and claims 4-6 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandel in view of Koizumi. Without commenting substantively on these rejections, Applicant submits that these claims are allowable at least by virtue of depending from claim 1.

New claim

In order to provide additional claim coverage merited by the scope of the invention, Applicant is adding new claim 10. As noted above, claim 10 is believed to be allowable at least by virtue of its dependency.

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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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